

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. APPLN. NO. 09/736,181

REMARKS

**N.B.** Examiner Tran is respectfully requested to enclose, with the next PTO communication, an initialed copy of the Form PTO-1449 attached to the **Information Disclosure Statement** filed with the application on **December 15, 2000**.

With regard to paragraphs 4 and 5 on pages 2-5 of the Office Action, Applicant calls the Examiner's attention to the Preliminary Amendment which was filed on **December 15, 2000**, and in which the Abstract **already** is amended as suggested by the Examiner, and the headings **already** are inserted in the specification. Thus, Applicant requests the Examiner to **withdraw the objection** to the Abstract and specification.

Applicant notes the Examiner's statement that Applicant's previous arguments "are persuasive", and that the previous rejection has been withdrawn.

The Examiner now rejects all of claims 1-6 under 35 U.S.C. § 103(a) as being unpatentable (obvious) over Billstrom '101. (In the previous Action, the Examiner rejected claims 1-3, 5 and 6 under 35 U.S.C. § 102(b) as being **anticipated** by Billstrom '101, and claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Billstrom.)

Applicant again must respectfully **traverse** the Examiner's present rejection of claims 1-6 under 35 U.S.C. § 103(a), because, Applicant respectfully submits, Billstrom's teaching/disclosure does **not render prima facie** obvious the subject matter of each of claims 1-6.

First, claims 1 and 6 have been amended explicitly to specify that the size and location of the domains which have a lower interference level depend both on the antenna directivity of said

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distant end-users and **also** on the relative positions of said distant base station and said first base station.

The word, "relative" means "relative" to the end-user and the way his antenna is aligned with respect to the first base station and with respect to the distant base station. In other words, the alignment is the orientation of the directivity angle (of the end user) with respect to the first base station and with respect to the distant base station. This orientation is defined by the bold lines in Applicant's Fig. 1. The directions of the bold lines and an area around these directions, define an area of higher interference, cf. specification page 6, lines 5-17. Other regions show less interference. Applicant's invention uses different modulation schemes for the regions of high and of low interference, respectively.

More specifically, Billstrom '101 discloses a point-to-multipoint radio access system in which there is chosen the type of modulation with which simultaneously:

- i) a maximum range can be achieved, and
- ii) the signal quality (expressed by a minimum "C/I" ratio) is acceptable.

For that purpose, Billstrom selects the modulation type which provides the minimum C/I ratio, whereby the C/I ratio must be at least the minimum value according to requirement ii); cf. Fig. 4A of Billstrom.

As can be seen from claim 1 or from column 6, lines 39-67 of Billstrom, the above method is applied for each end-user/terminal. The choice of the modulation type depends on **only** the end users's distance from the base station, and **not** on any **alignment** of this terminal.

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As a consequence, Billstrom does not disclose (or even suggest) a change of the modulation type depending on domains, as defined by both limitations "a)" and "b)" in claims 1 and 6.

Even if, by hindsight, some kind of domain might be defined in Billstrom, the definition of such a domain in Billstrom would **not** depend on **both** limitations a) and b) as defined in independent claims 1 and 6.

In addition, Billstrom determines a modulation type specific to the end-user. This **individual allocation** of modulation types is **different** from Applicant's claimed invention which requires "domains". The concept of "domains", as claimed by Applicant, requires that all end-users within a "domain" have the **same** modulation type. **In contrast**, in Billstrom the different end-users within a domain will have **different** modulation types. In other words, Billstrom does not disclose, or even suggest, Applicant's claimed feature, wherein end-users located in at least one domain of said cell, in which said interference level is lower than a predefined interference level, communicate with said base station by using a second modulation type over a second communication channel, said second modulation type having a higher efficiency than said first modulation type.

Thus, and notwithstanding the Examiner's assertions to the contrary, Applicant respectfully submits that the above technical explanation shows that the subject matter of claims 1-6 would not have been (and could not have been) obvious from Billstrom's disclosure **at the time of Applicant's invention.**

In this regard, Applicant notes that the Examiner makes several conclusory statements of obviousness in an attempt to support the rejections of claims 1-6 under 35 U.S.C. § 103(a).

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Applicant respectfully submits that each of these statements is based on the Examiner's prohibited use of hindsight knowledge, of Applicant's own disclosure, in an attempt to reconstruct Applicant's claimed subject matter, where, in fact, there is **no** other basis for such reconstruction and for the far-reaching conclusory statements of obviousness **except Applicant's own disclosure.** The Examiner's attempts to show motivations to modify Billstrom's disclosure are based on statements taken directly from **Applicant's disclosure.**

(Claims 1, 4, 5 and 6 have also been amended to eliminate any possible antecedence problems.)

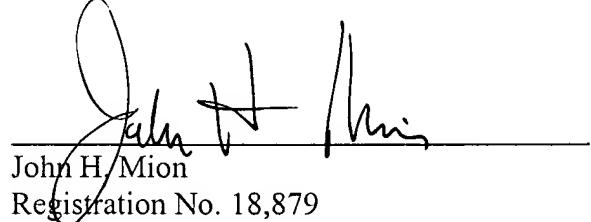
Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw all objections, requirements and the rejection under 35 U.S.C. § 103(a) and to find the application to be in condition for allowance with all of claims 1-6; however, if for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is respectfully requested to **call the undersigned attorney** to discuss any unresolved issues and to expedite the disposition of the application.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this application, and any required fee for such extension is to be charged to

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Deposit Account No. 19-4880. The Commissioner is also authorized to charge any additional fees under 37 C.F.R. § 1.16 and/or § 1.17 necessary to keep this application pending in the Patent and Trademark Office or credit any overpayment to said Deposit Account No. 19-4880.

Respectfully submitted,



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